

# Community Salmon Investigations for Highline

## CSI: Highline

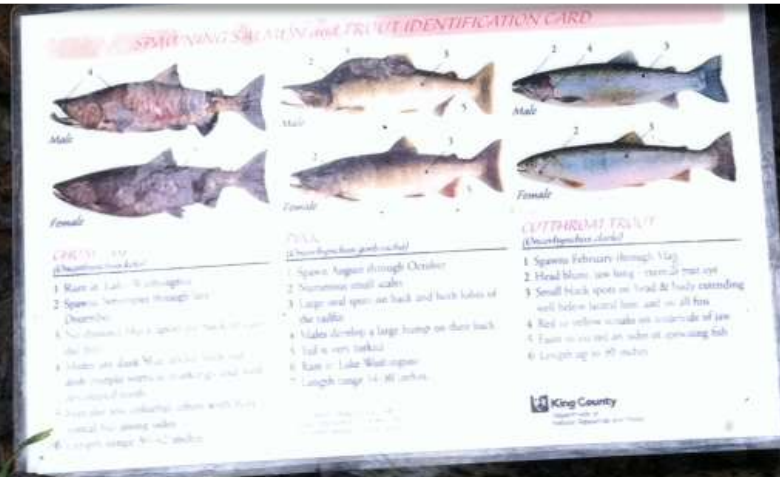
7<sup>th</sup> Annual Orientation & Training Workshop  
October 3, 2016

Elissa Ostergaard  
Miller-Walker Basin Steward, King County

# Agenda

- Why count & cut open salmon?
- How to survey
- Safety Requirements & Emergency Procedures
- Salmon & Redd identification – tips & practice
- Carcass necropsy for “pre-spawn mortality”
- Submitting data – web form online & accounts for new volunteers
- Teams & scheduling, turn in waivers
- Pick up survey kits & vests

# 1) Purpose of CSI



**Coho “jack”  
(immature male)**

November 11, 2011

Photo courtesy of David Bobanick

# Basin Boundaries for Miller and Walker Creeks

## Legend

Burien	King County (unincorporated)	Freeways & Arterials
Normandy Park	Port of Seattle Property	Local Roads
Seattle	Basin Boundary	Railroads
SeaTac	Subbasin Boundary	Pipes
Takoma	SAD Wetlands	Other Significant Man-made Features
Des Moines	Streams & Waterline	

**Basin Map Notes:**  
All waters originate in King County.  
Boundary is based on 1992 Aerial Photo Data.

**Data Sources:**  
Miller Creek Basin & Walker Creek Basin, 1992  
Miller Creek Basin (King County) 1992/01/11  
Walker Creek Basin (King County) 1992/01/11  
Basin Map Notes: 1992, 1992/01/11  
Basin Map Notes: 1992, 1992/01/11



Compiled April 1994, updated June 2002

**King County**  
Department of Natural Resources and Parks  
Water and Land Resources Division



Miller and Walker Basins



# Basin Monitoring Coordination Workshops with Dennis Clark, Fall 2008



**Monitoring Workshop #1 at  
Burien Community Center**  
September 24, 2008

**Monitoring Workshop  
#3 in Burien**  
December 4, 2008



# Activities and Purpose of *CSI: Highline*

- Count adult salmon – indicators of the health of the ecosystem
- Document rate of coho “pre-spawn mortality” and see how pollution prevention helps
- Raise the awareness about the streams in the community

# Life Cycle of Pacific Salmon



Photo by Hans Berge

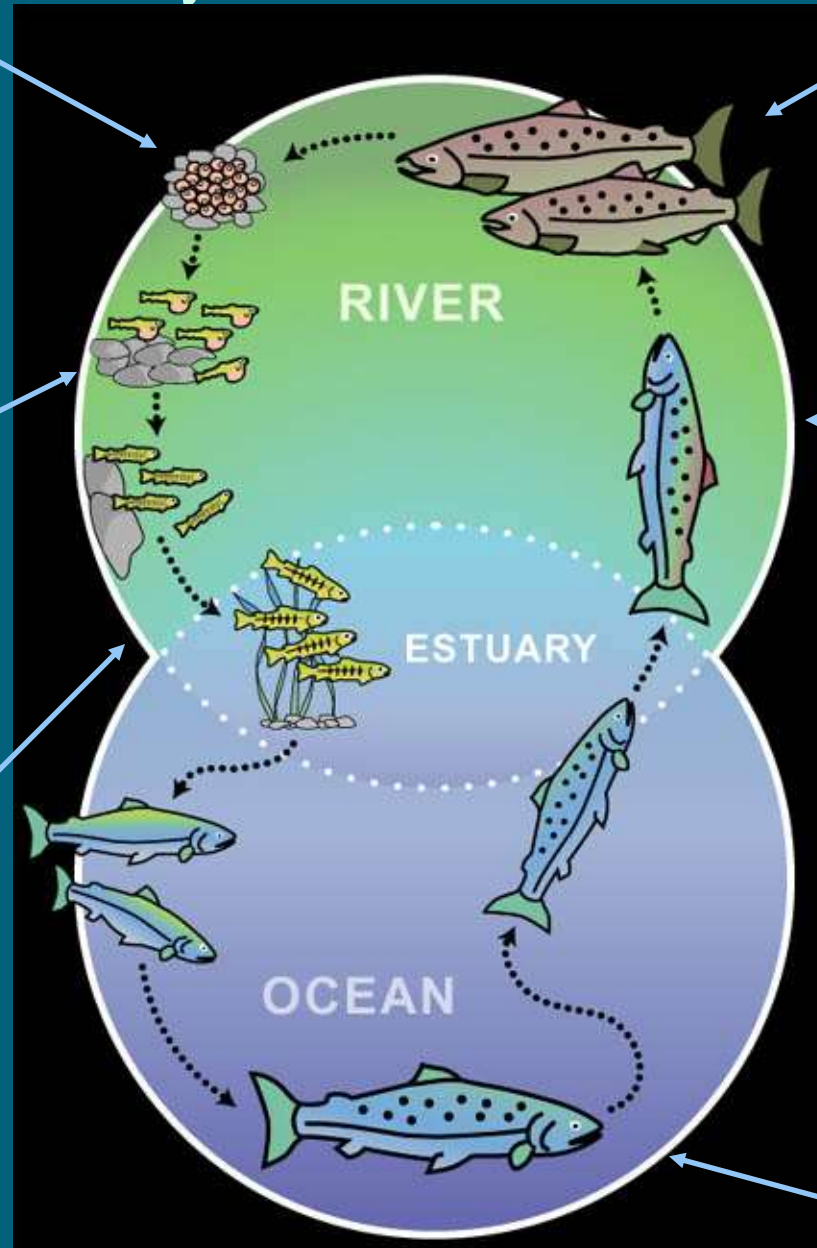
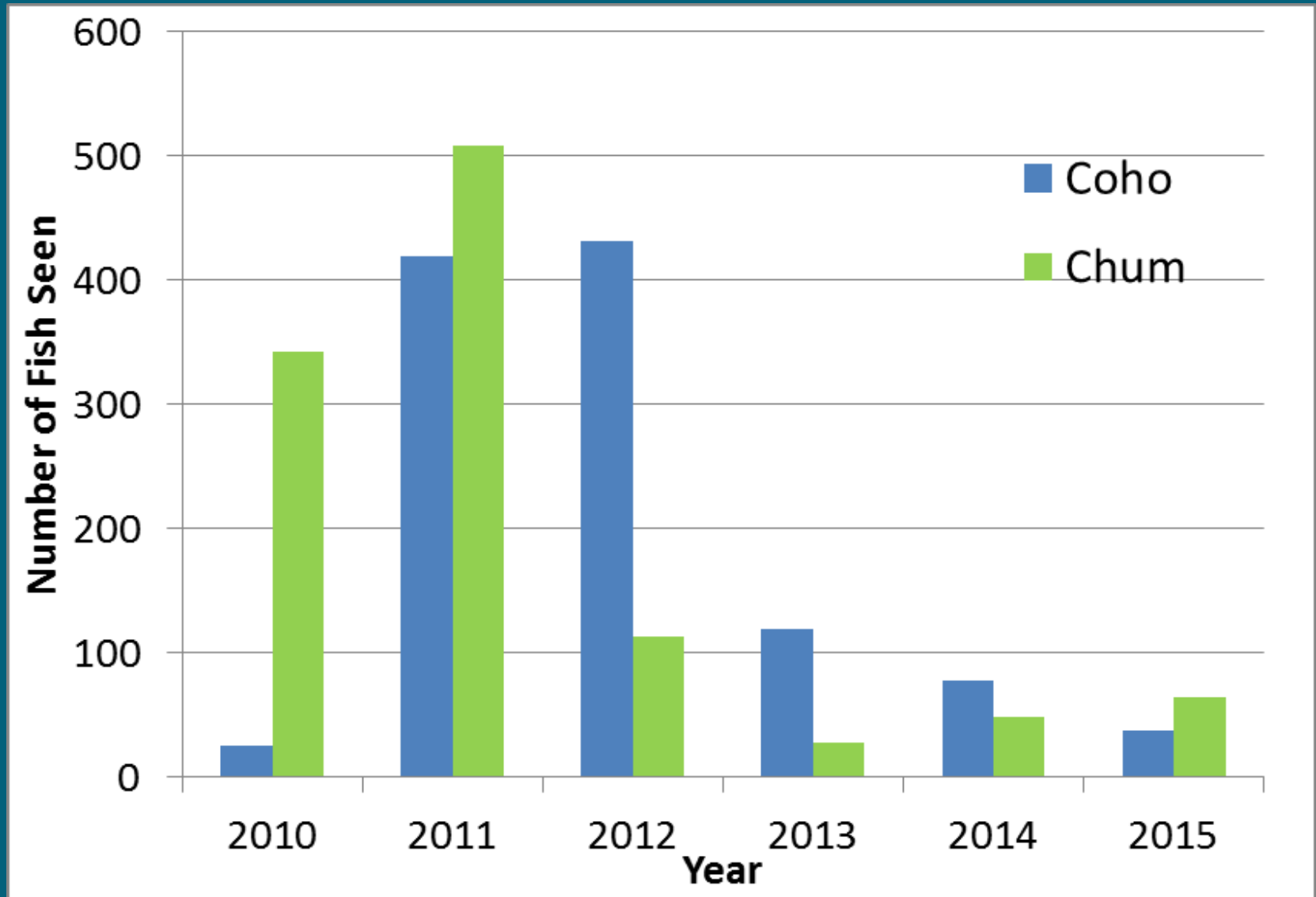


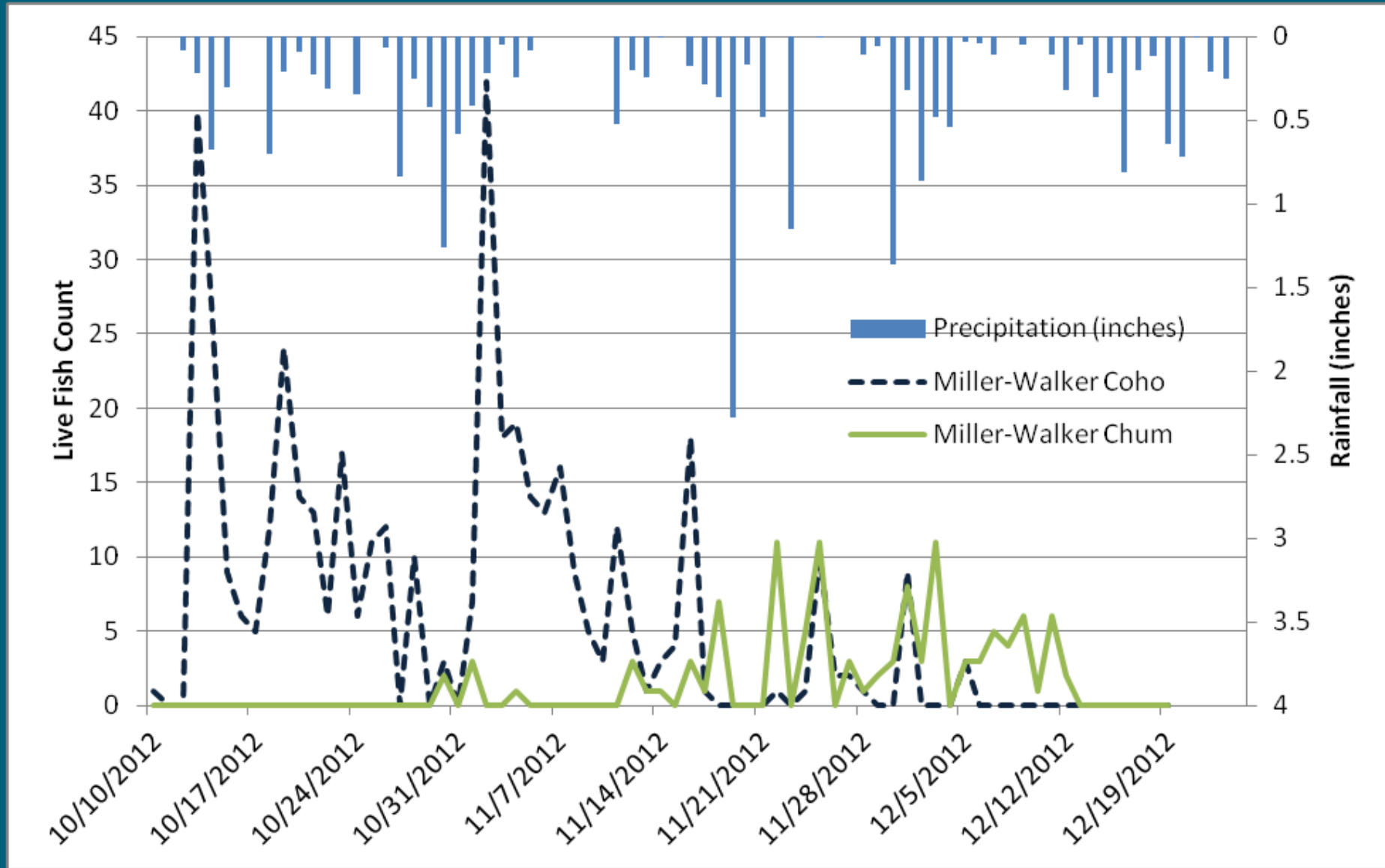
Photo by Al Solonsky

# Results: 2010-2015 Sightings

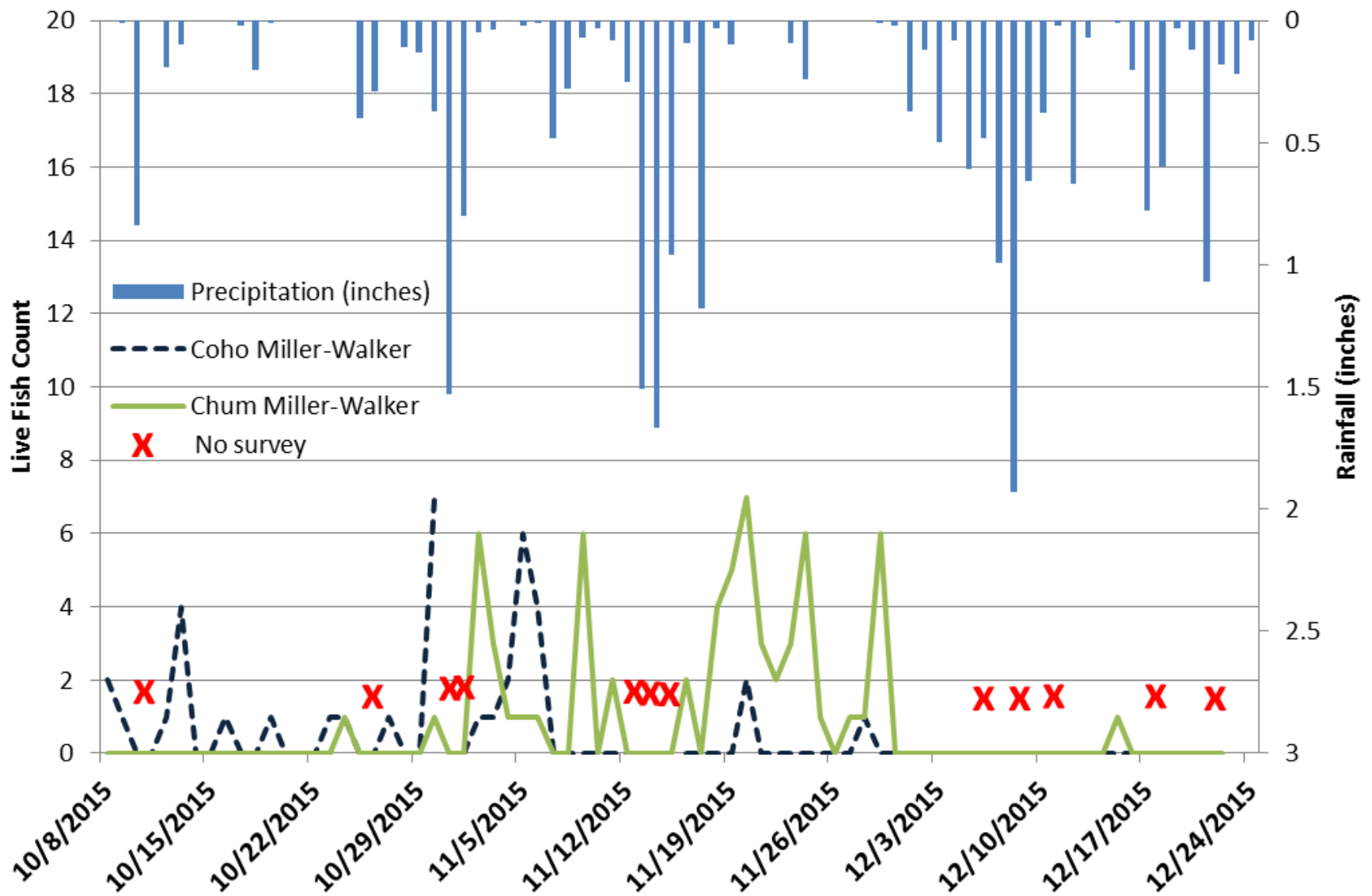




# Rainfall and live fish - 2012



# Rainfall and live fish - 2015



Stormwater  
is not  
treated





# Prespawn Mortality

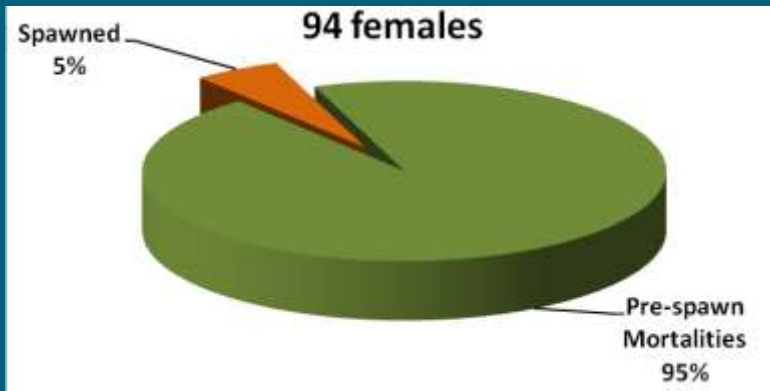


**Coho experiencing  
“prespawn” mortality at  
Upper Miller survey  
location  
October 23, 2009**

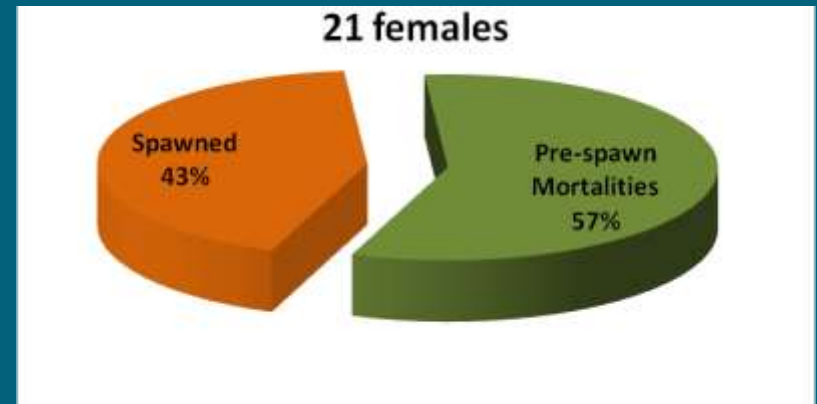


# Coho: Spawning Success in 2012: Miller/Walker and Nearby

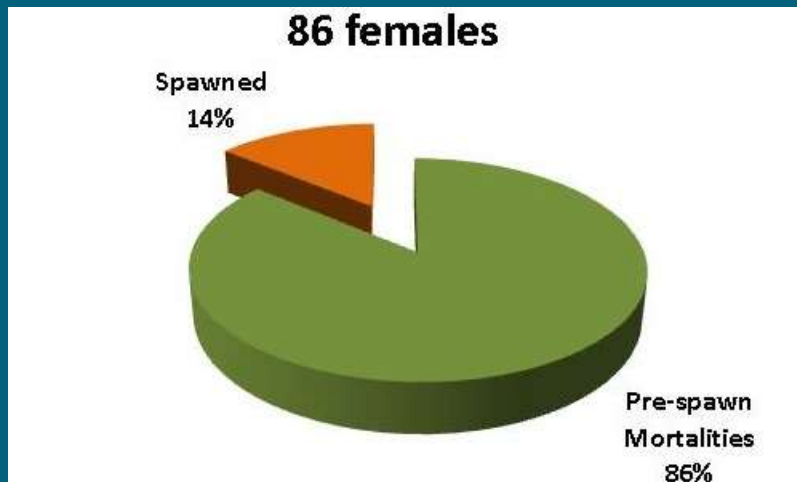
## Miller Creek- 95% PSM



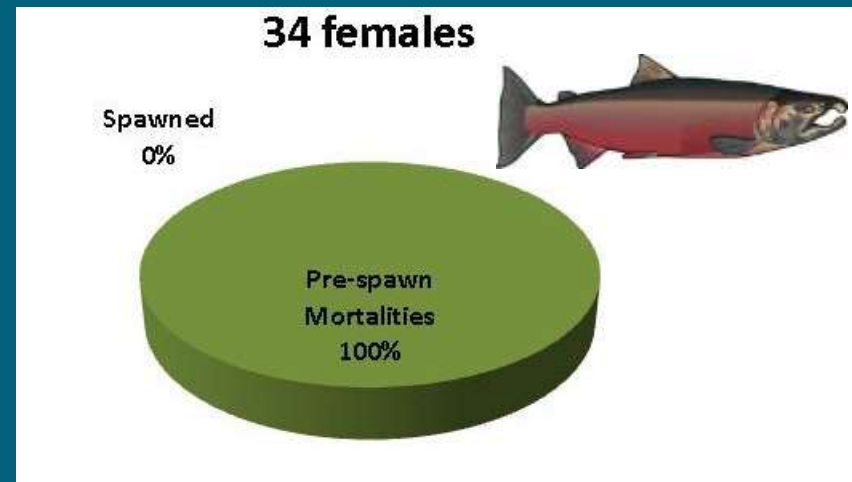
## Walker Creek – 57% PSM



## Longfellow Creek – 86% PSM



## Des Moines – 100% PSM

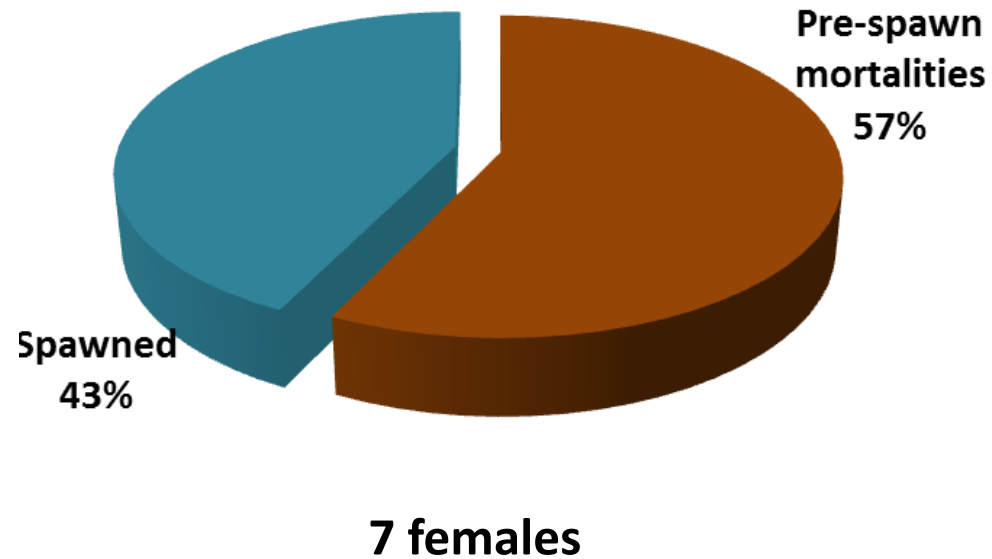
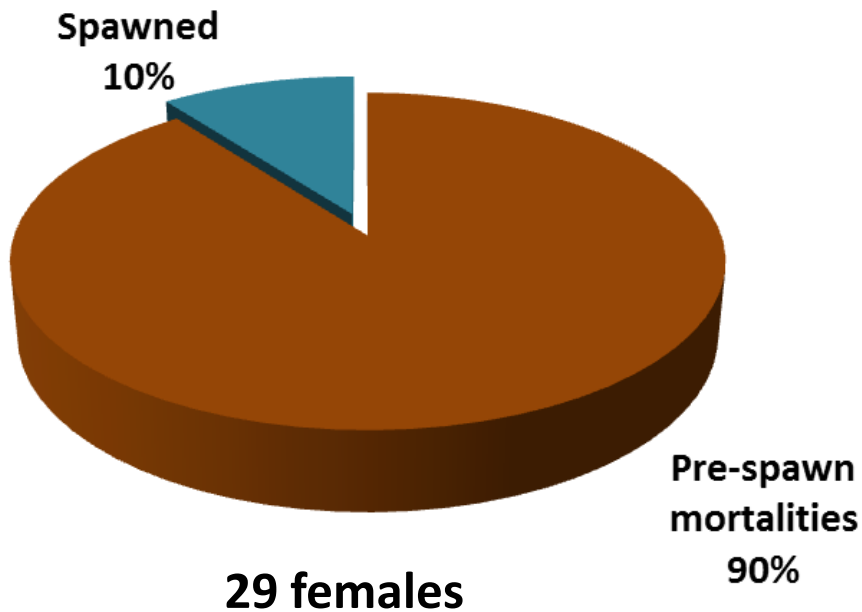


# Coho: 2014 Pre-Spawn Mortality

**Miller Creek**  
**90% PSM**

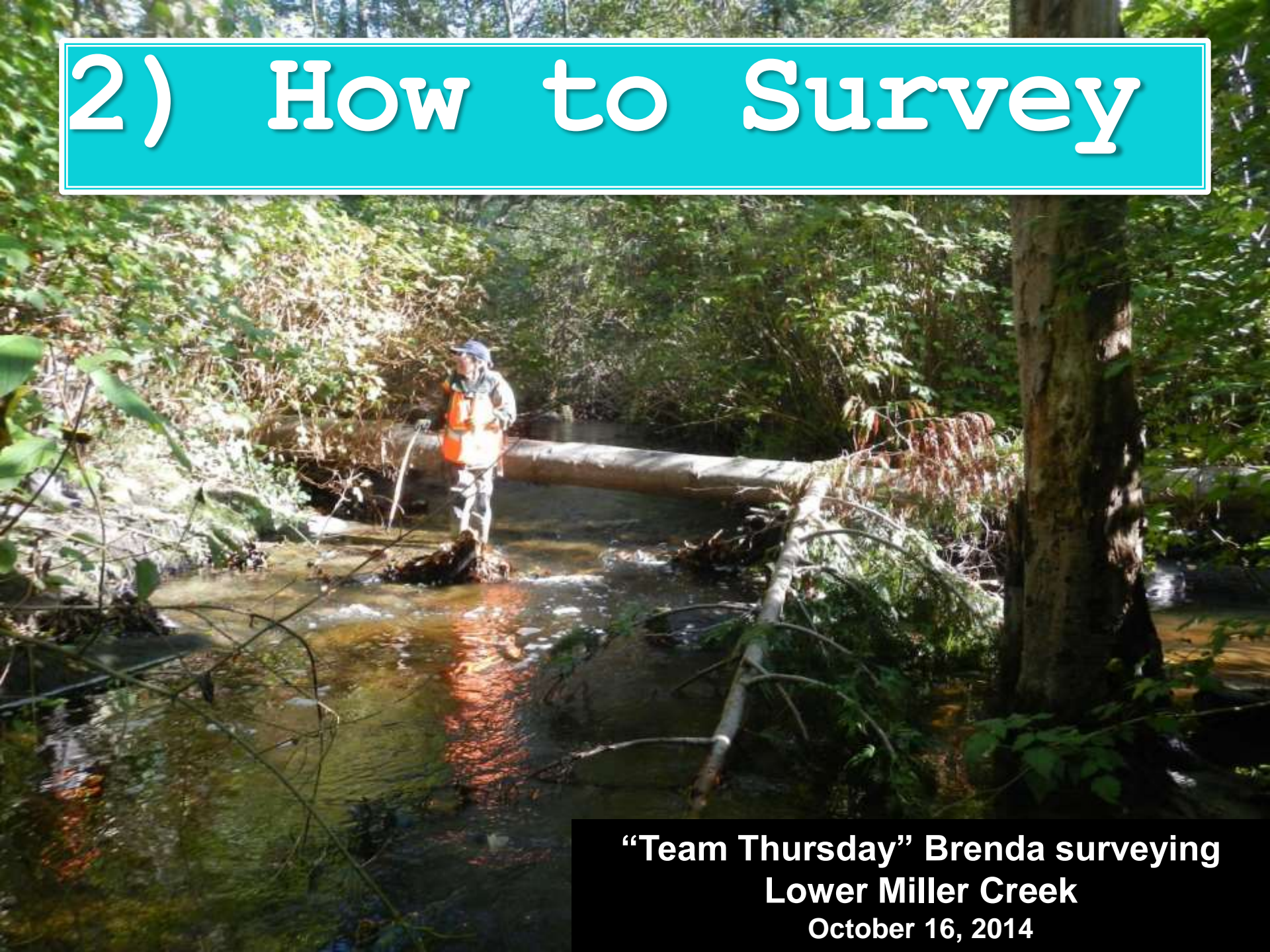


**Walker Creek**  
**57 % PSM**



**Overall coho pre-spawn mortality: 83%**

## 2) How to Survey



**“Team Thursday” Brenda surveying  
Lower Miller Creek**

**October 16, 2014**



# CSI: Highline – When

When do we start surveys?

Saturday, October 8

How often do we survey?

- A team will survey EVERY DAY (unless it is bad weather)
- Each team will survey once a week or every other week on the day they are scheduled

When do we stop surveys?

Sometime between Christmas and the end of January, when we haven't seen any live adult salmon for 10 days.



# Where?

## Miller and Walker Creek Drainages

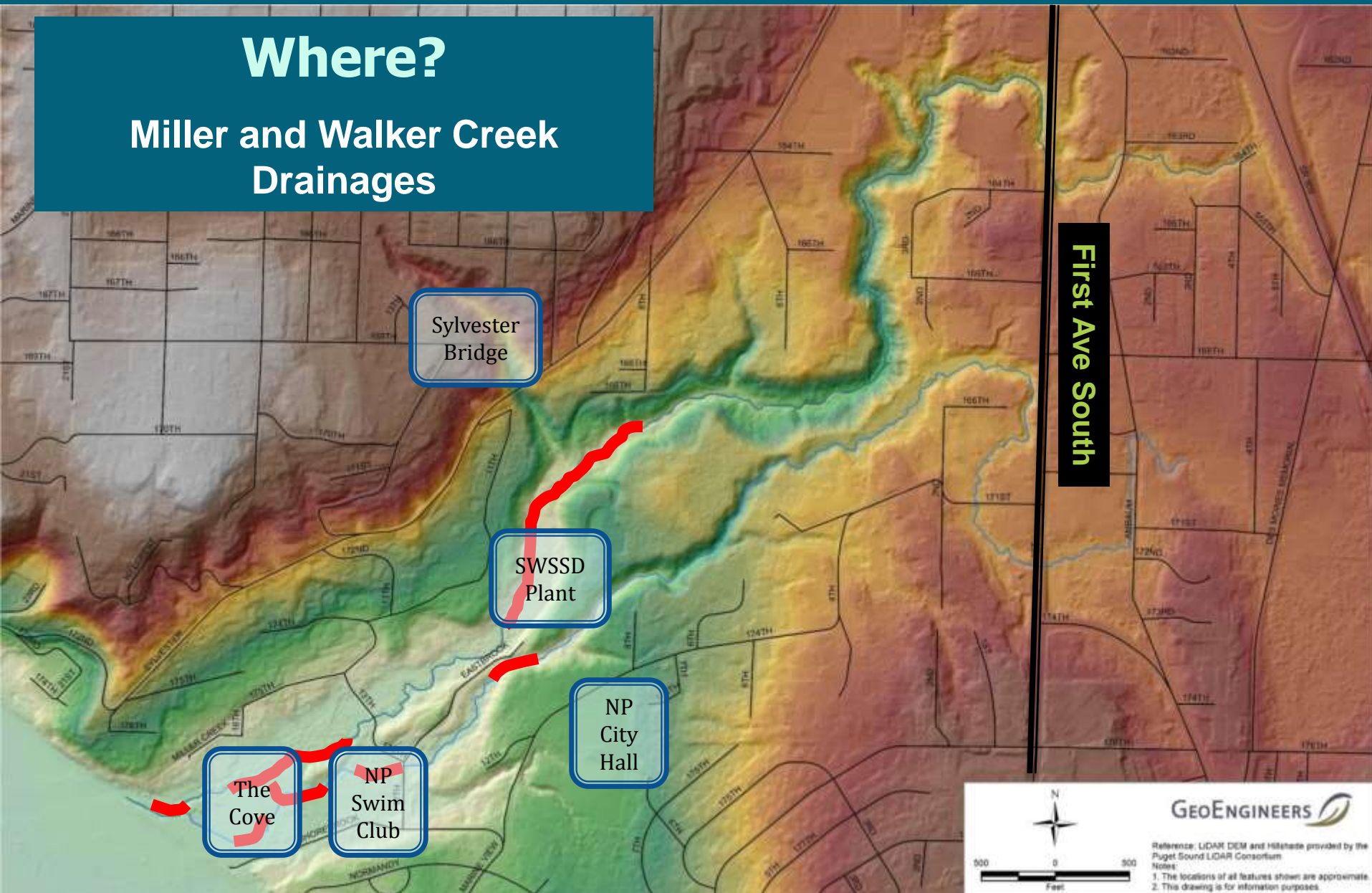


Image courtesy of GeoEngineers and Washington State Department of Transportation

# Survey Locations

- Four locations
  - Two on Miller Creek
    - Lower Miller – Private, The Cove, and Adams property (Call Adams' in advance)
    - Upper Miller – Sewer District and Fish property
    - (Above 1<sup>st</sup> Ave S. not surveyed – not many fish and difficult access)
  - Two on Walker Creek
    - Upper Walker – Beffa, Backstrom, Henry properties (Note: shorter than last year, go out and back)
    - Lower Walker – The Cove, Swim Club



# CSI Survey Locations Topographic Map of the Miller and Walker Creek Drainages

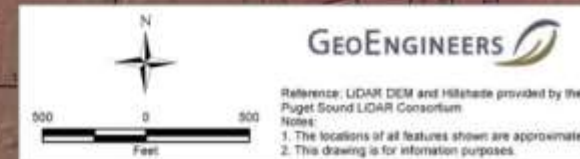
Upper Miller  
Survey Location

Lower Miller  
Survey Location

Upper Walker  
Survey Location

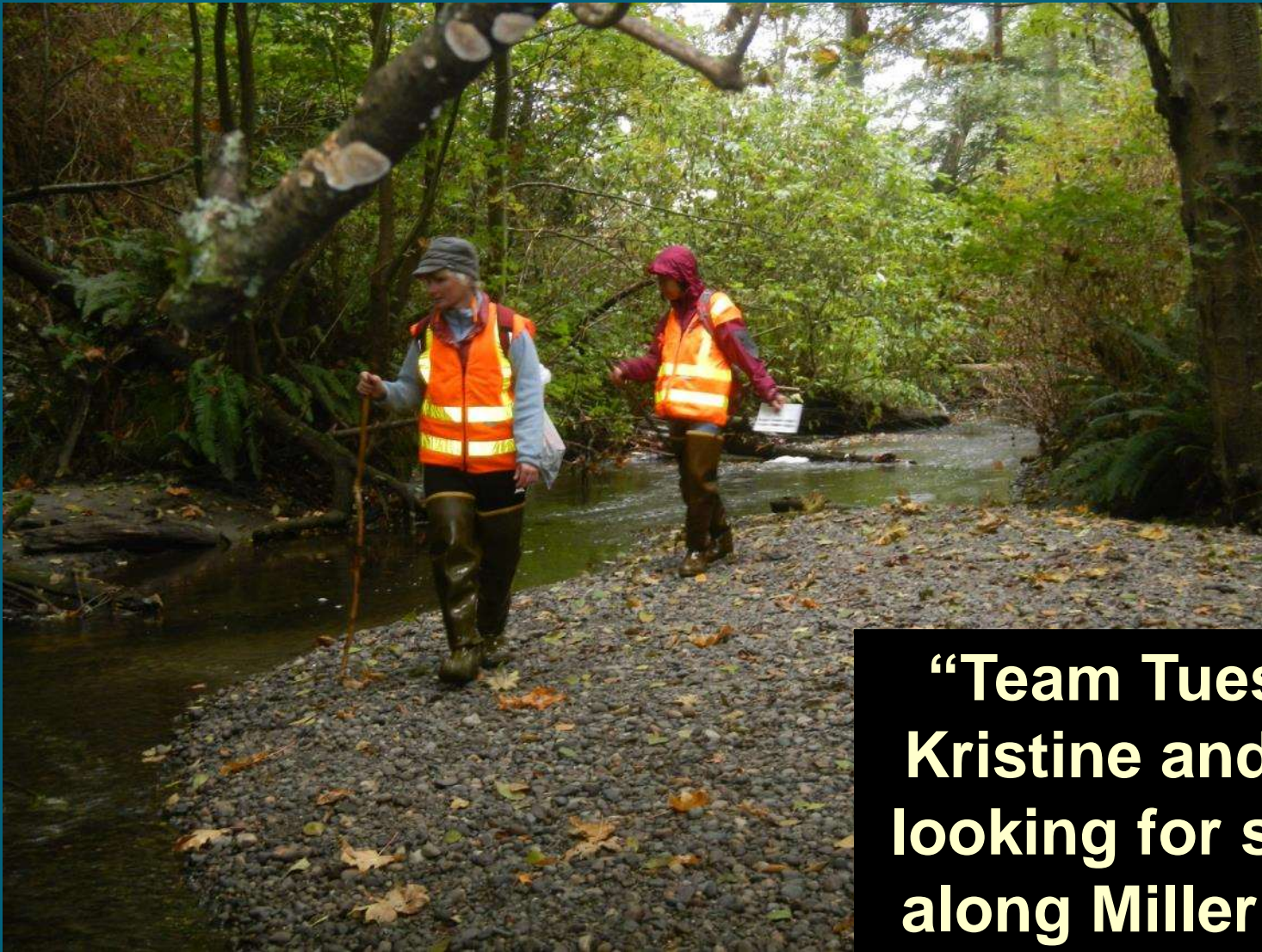
Lower Walker  
Survey Location

First Ave South





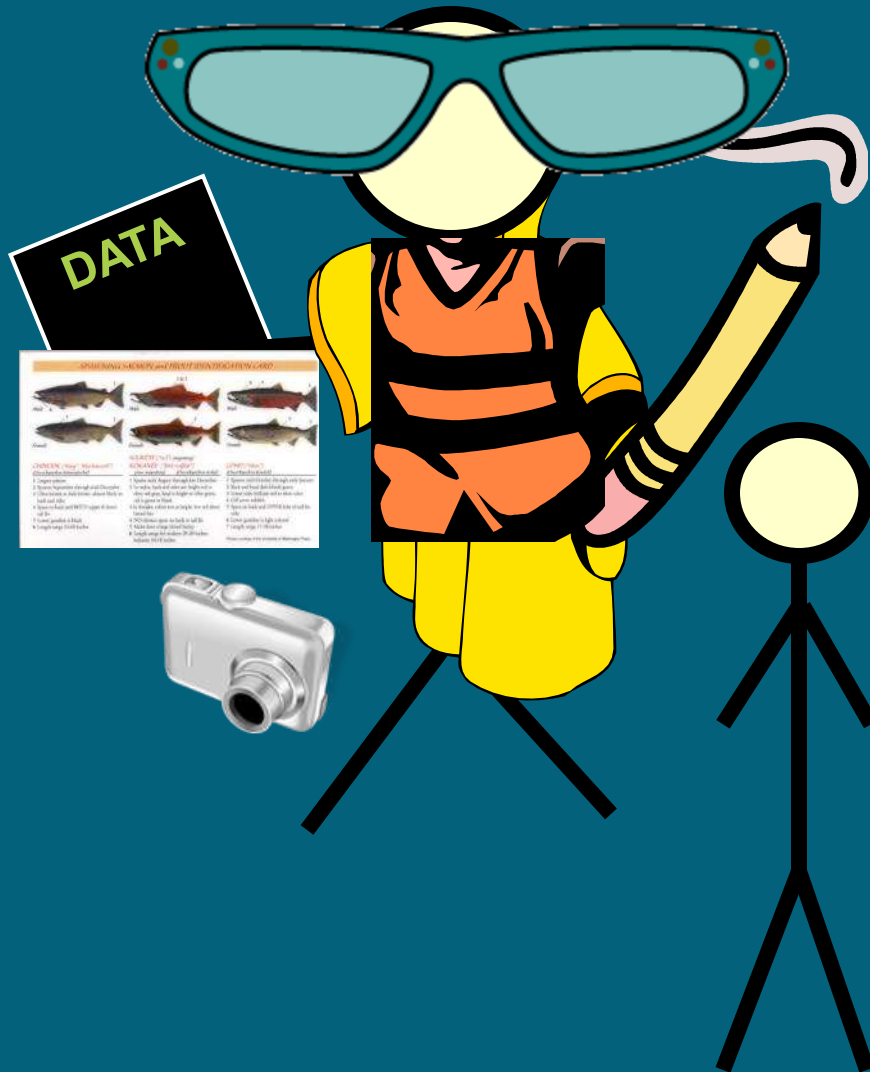
# Looking for live and dead fish



**“Team Tuesday”  
Kristine and Rony  
looking for salmon  
along Miller Creek**



# What To Bring



- Data sheets
- Car ID sheet for dash
- Lock combo & phone numbers
- Salmon ID materials
- Digital Camera /mobile
- Pencils NO pens, please!
- Polarized glasses
- Raingear & waders
- A Buddy! (for fun & safety)
- Orange vest (for safety)
- Walking stick

# Safety

- Surveying is not worth risking life or limb over.
- ALWAYS THINK! Using your brain is the best way to stay safe. If an activity seems “wrong,” your brain is telling you: “Don’t do it.”
- **ALWAYS survey with a partner.** If team members disagree about what to do, go with the more “conservative” course of action.
- **Do NOT survey when water is flowing fast and deep** – if you can’t see into the water, it is probably too fast/deep for you to survey safely (and you wouldn’t see fish anyway).
- **Do NOT survey during windy conditions** because of falling tree branches.

# Safety

- Be aware of and avoid hazards:
  - Slipping on mud, vegetation and wet rocks
  - Falls on slopes/streambanks
  - Unstable footing as logs or rocks roll
  - Poke in the eye from branches
  - Scrapes from branches
  - Stinging nettles, blackberries
  - Cuts from knife/gutting tool
  - Hypothermia from getting wet and cold
  - Bee stings – especially if allergic
- Stop surveying if anyone is hurt, wet or too cold

# Safety – Other Good Ideas

- Carry a cell phone in a Ziplock or watertight bag.
- Keep your keys & other valuables in a zipped/velcroed pocket so they don't fall out.
- Contact your sampling partner and make arrangements on the time and place you will meet.
- Each team should decide on a lead. The lead is responsible for making sure someone surveys on your day and bringing the survey kit unless other arrangements are made.
- Take a CPR and/or Wilderness First Aid course



# Emergency Procedures

- In case of emergency, call 911
- Know how to get to the nearest Emergency Room:

**Highline Medical Center**

16251 Sylvester Rd SW

Burien, WA 98166

(206) 431-5314

# Keeping invasives out

- Use dedicated boots and stick
- If boots have been in other creeks, disinfect:
  - 5 minutes in water over 140 degrees
  - Freeze overnight
  - Brush off all visible dirt
  - No felt soles
- See King County web page on New Zealand Mud Snails

# CSI *Style*

Polarized  
sunglasses  
for fish  
spotting

Bag for  
supplies

**“Team Thursday” Kay  
modeling survey attire on  
Miller Creek**

Photo courtesy of Pam Silimperi

Rain gear and  
layered clothing

Safety vest for visibility  
and identification as CSI

Dat a forms and phone numbers

Trekking pole  
for stability and  
flushing fish

Chest waders for extra  
warmth and deep water



# Recording Data

## Daily Survey Sheet - Community Salmon Investigation for Highline

Date: 11 / 19 <sup>2013</sup> ~~2012~~

Team Members: Liesl Sallquist & Kristine Feldman

Site: Miller and Walker Creeks

(north end)

Start Time 08:15 am End Time 12:00 pm Weather: Sunny ☒ Cloudy ☐ Rainy ☐ Water Level at Cove Beach: ~ 5 cm

Dead Adult Fish  Fish ID#	Species	Fork Length	Fish Girth	POH	Ad Fin?	Sex	% Egg Retention (dead females)		Spawning Condition			Predated?	Notes (general location, extent of any signs of predation, etc.)
		(cm)	(cm)	(cm)	(Y/N)	(M/F)	0-50	50-100	PSM	POST	UNK	(Y/N)	
Example: 10-15-12 01	coho	52	40	36	Y	F		X	X			Y	Bites out of back. Full of eggs.
Lower Walker 11-19-13-01	chum	82.5	44	63	Y	M					X	N	Gills still bright red. Beautiful fish!
Lower Miller 11-19-13-02	coho	54.5	23.5	43	N	M					X	N	Tail fin worn. Testes pink & deflated. Forgot to clip off snout.
Upper Miller 11-19-13-03	coho	60.0	31.5	47	Y	F		X	X			N	Gills pinkish, fins & skin in good shape. Found above water's edge.

Fork Length = distance from tip of snout to fork in tail. POH = distance from back of eye to bend in tail. Ad = adipose fin  
PSM = Pre Spawn Mortality (not spawned), POST = Post spawning, UNK = unknown spawning condition (females) or male fish. Predated = evidence that another animal bit or ate the fish.

### Live Adult Fish

Location	Coho	Chum	Other Adult Fish (record here if not 100% sure of species ID)	Notes Regarding Adult and Juvenile Fish, Wildlife, Stream Condition (flow volume, clarity, presence/absence of foam)
Lower Miller	0	0	3	High flow volume, water clarity not very good. Browns tea-stained (tannins?) + some sediment.
Lower Walker	0	0	0	
Upper Walker	0	0	0	
Upper Miller	0	0	0	

Possible new redds (write general location and note marking/flagging that your team placed – hang flag above redd with date, species if known, and REDD): \_\_\_\_\_



# Dead fish = carcasses

**“Team  
Wednesday” Lee  
measuring a  
salmon carcass**



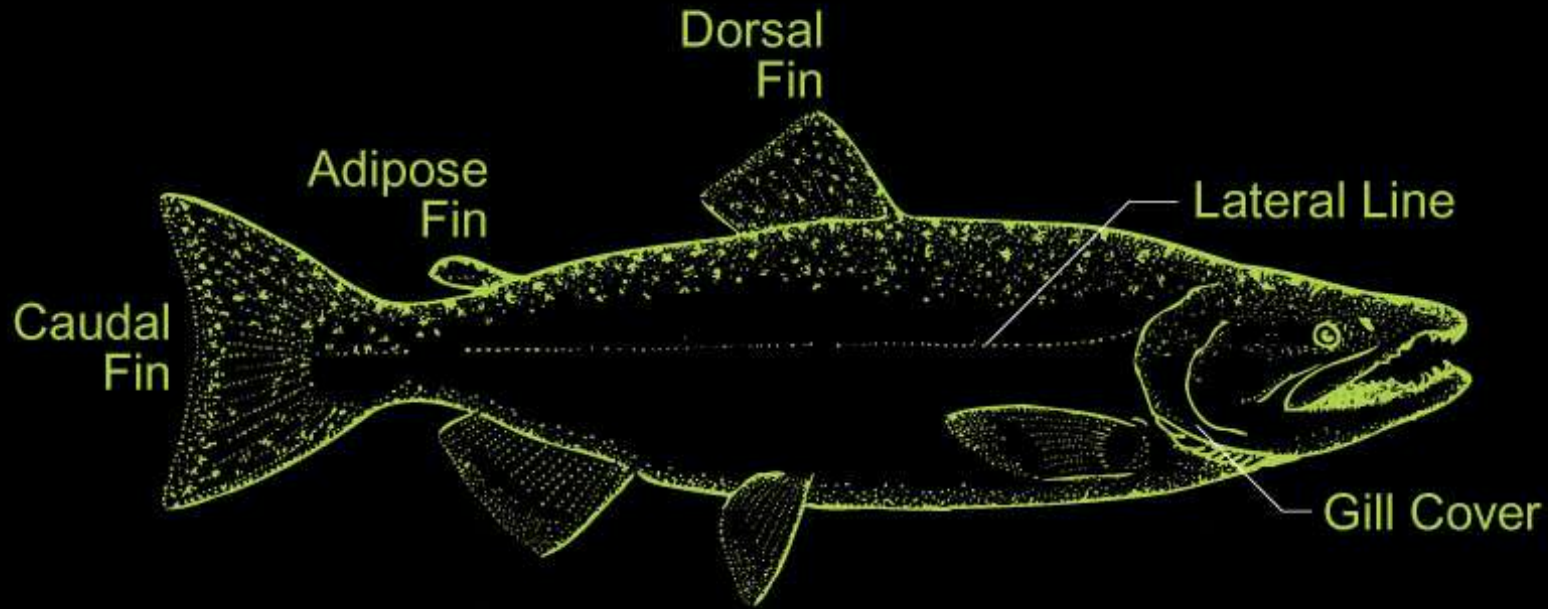


# Measure and Check for Adipose Fin

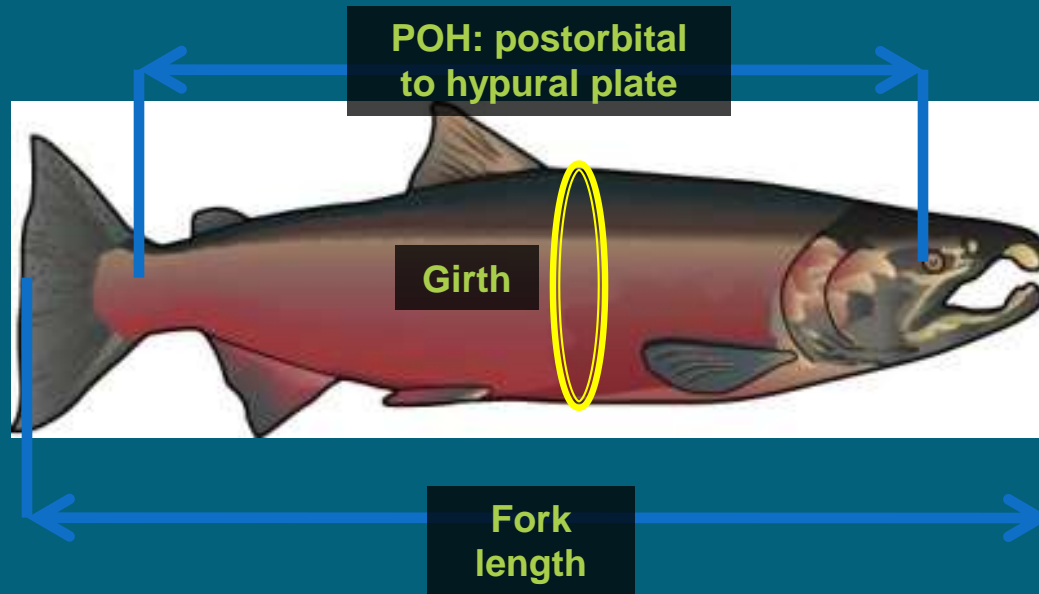


**“Team Monday”  
Joy, Roger &  
Michael – it takes  
teamwork  
October 15, 2012**

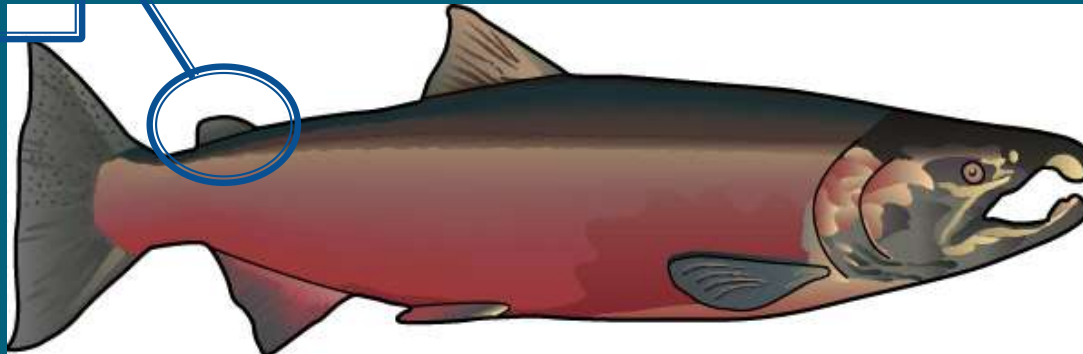
# Key Identification Features



# Measuring Carcasses & Hatchery Origin



Adipose  
fin





# Recording Data

## Daily Survey Sheet - Community Salmon Investigation (CSI) for Highline

Date: \_\_\_\_\_

Team Members: \_\_\_\_\_

Site: Miller and Walker Creeks (circle one or both)

Start Time \_\_\_\_\_ End Time \_\_\_\_\_ Weather: Sunny Cloudy Rainy Water Level at Cove Beach: \_\_\_\_\_

Live <u>Adult</u> Fish				
Location	Coho	Chum	Other <u>Adult</u> Fish (record here if not 100% sure of species ID)	Notes: Which reach surveyed, adult and juvenile fish, wildlife, flow volume, water clarity, presence/absence of foam
Lower Miller				
Lower Walker				
Upper Walker				
Upper Miller				

**Possible new redds** - HANG FLAG ABOVE REDD, with date, species and REDD written in perm. marker (note here general location, species, and flagging that YOUR team placed): \_\_\_\_\_

**Notes (for overall survey):** \_\_\_\_\_

Dead <u>Adult</u> Fish  Fish ID# and Location	Species	Fork Length	POH	Fish Girth	Ad Fin?	Sex	% Egg Retention (dead females)		Spawning Condition			Predated?	Snout Collected?	Notes (general location, extent of any signs of predation, etc.) <b>For more dead fish, see Page 2</b>
		(cm)	(cm)	(cm)	(Y/N)	(M/F)	0-50	50-100	PSM	POST	UNK	Y/N	Y/N	
Example: 101513_01 LwrMlr	coho	52	40	36	Y	F		X	X			N	N	Example: Below bridge 2. Full of eggs.

**Ad** = adipose fin **POH** = distance from back of eye to bend in tail. Location codes: LwrMlr = Lower Miller, LwrWkr = Lower Walker, UpWkr = Upper Walker, UpMlr = Upper Miller  
PSM = Pre Spawn Mortality (not spawned), POST = Post spawning, UNK = unknown spawning condition. Predated = evidence that another animal bit or ate the fish.

# Cut Open – Check for Eggs/Milt

**“Team Tuesday” Pam  
cutting open the carcass to  
look for eggs**

**Photo courtesy of Pam Silimperi/Kay Larsen**





# Check for Pre-Spawn Mortality (PSM)

**Investigating egg retention  
– this female spawned!**

Photo by L. Moyer





# Females – Egg Retention



**Full of Eggs  
– Pre-spawn  
mortality**

October 24, 2011  
Photo by D. Bobanick



# Evidence of Predators



**Predated coho carcass and  
raccoon tracks**

**October 16, 2012**



# Collecting Coho Snouts for Coded Wire Tags – Bag, write ID #, note on form



Image from Alaska Department of Fish  
and Game



# Count and Mark All Dead Fish

Each carcass is  
“marked” by cutting  
off the tail so it is  
only counted once





# Redds – egg nests in gravel

**Chum building a  
redd**

**November 7, 2010**



# Recording data

## Daily Survey Sheet - Community Salmon Investigation for Highline

Below gauge

Team Members: MOYER WALLACE

Date: 11/13/13

Site: Miller and Walker Creeks (circle one or both)

Start Time 9:35 End Time 12:40 Weather: Sunny Cloudy X Rainy Water Level at Cove Beach:

Dead <u>Adult</u> Fish  Fish ID# and Location	Species	Fork Length	Fish Girth	POH	Ad Fin?	Sex	% Egg Retention (dead females)		Spawning Condition			Predated?	Notes (general location, extent of any signs of predation, etc.) For more dead fish, see Page 2
		(cm)	(cm)	(cm)	(Y/N)	(M/F)	0-50	50-100	PSM	POST	UNK	(Y/N)	
Example: 101513_01 Lower Miller	coho	52	40	36	Y	F		X	X			Y	Bites on back. Full of eggs.
LM-01	coho	56	26	46.5	N	F	Ø			X		N	
LM-02	coho	60	30	46.5	N	F		100	X			N	
LM-03	coho	61	30.5	49.5	N	F		100	X			N	
LM-04	coho	58.5	26	48	N	F	Ø			X		N	
LM-05	coho												Back half gone

Ad = adipose fin POH = distance from back of eye to bend in tail. Location codes: LwrMlr = Lower Miller, LwrWkr = Lower Walker, UprWkr = Upper Walker, UprMlr = Upper Miller  
PSM = Pre Spawn Mortality (not spawned), POST = Post spawning, UNK = unknown spawning condition. Predated = evidence that another animal bit or ate the fish.

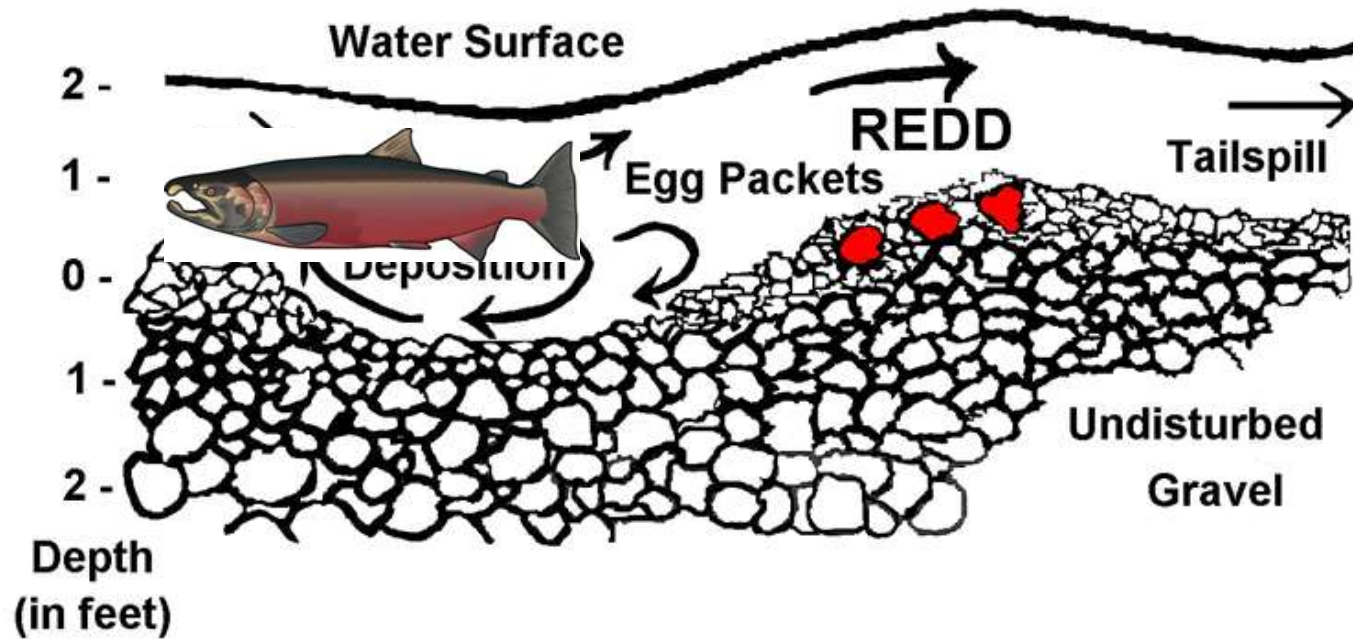
### Live Adult Fish

Location	Coho	Chum	Other <u>Adult</u> Fish (record here if not 100% sure of species ID)	Notes: Which reach surveyed, adult and juvenile fish, wildlife, flow volume, water clarity, presence/absence of foam
Lower Miller				
Lower Walker	III			
Upper Walker				
Upper Miller				

Possible new redds - HANG FLAG ABOVE REDD, with date, species and REDD written in perm. marker (note here general location, species, and flagging that YOUR team placed): \_\_\_\_\_



# Redd





This aerial map displays the Walker Creek and Miller Creek watersheds in the SW 17th St area of Miami. The map features a grid of streets, including SW 17th St, SW 18th St, SW 19th St, and SW 20th St, as well as various avenues and boulevards like SW 17th Ave, SW 18th Ave, and SW 19th Ave. The Walker Creek and Miller Creek are shown as blue lines, with red dots indicating the locations of 2011 Redds. A legend in the bottom right corner identifies the red dots as 'Redds 2011', black lines as 'Street', blue lines as 'River', and grey outlines as 'parcel'.







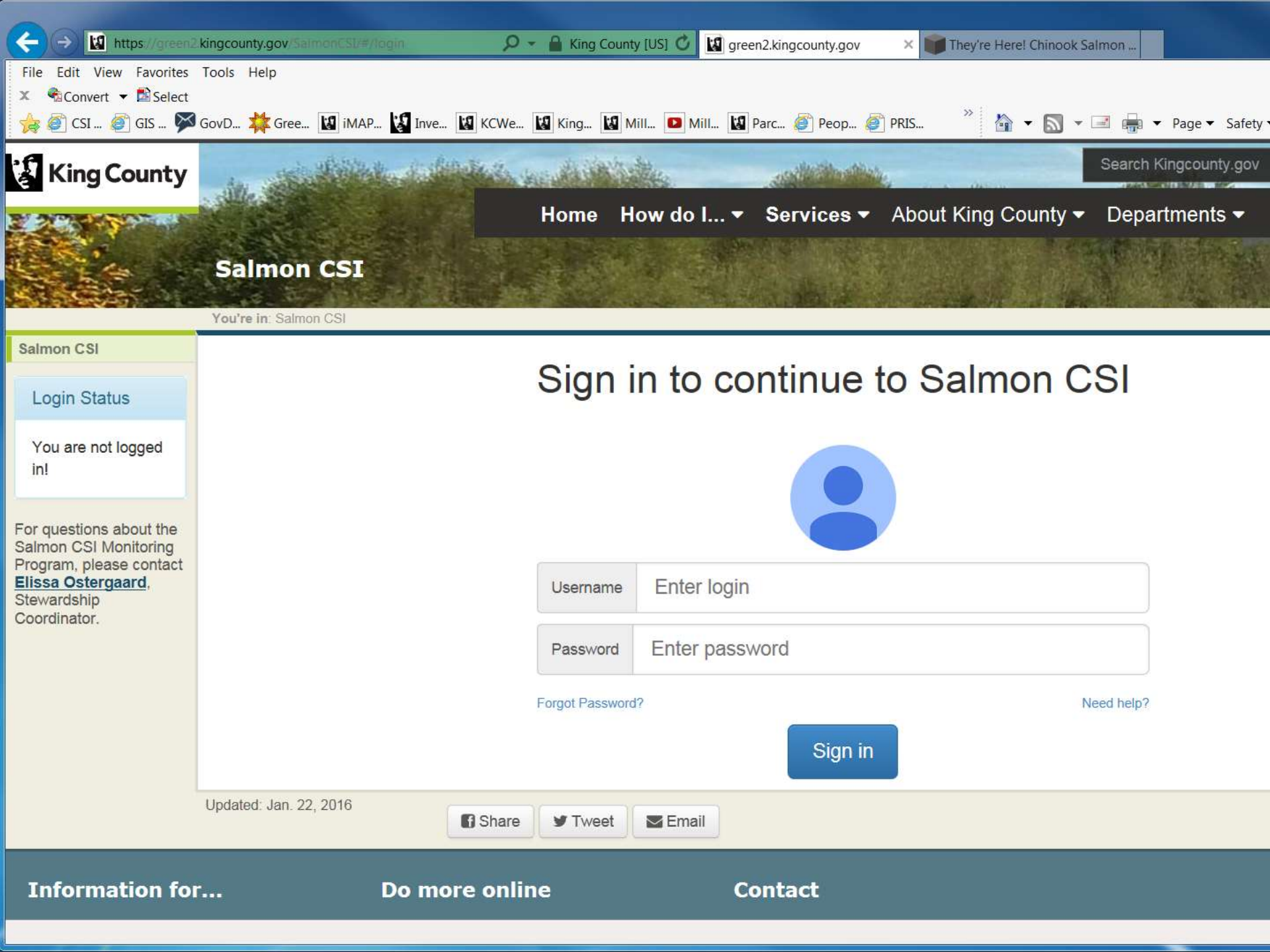


# Entering Data

- Enter data into web form within **3 days** of survey:

<https://green2.kingcounty.gov/SalmonCSI>

- Pick a username and password if you don't have one already
- Save paper data sheets and turn them in at the end of the season with frozen coho snouts



## Salmon CSI

You're in: Salmon CSI

### Salmon CSI

#### Login Status

You are not logged in!

For questions about the Salmon CSI Monitoring Program, please contact [Elissa Ostergaard](#), Stewardship Coordinator.

# Sign in to continue to Salmon CSI



Username

Enter login

Password

Enter password

[Forgot Password?](#)

[Need help?](#)

Sign in

Updated: Jan. 22, 2016

Share

Tweet

Email

CSI Daily Survey Sheet

Search Surveys

Manage Accounts

Welcome:  
**Elissa Ostergaard**

Log Off

For questions about the Salmon CSI Monitoring Program, please contact [Elissa Ostergaard](#), Stewardship Coordinator.

## Daily Survey Sheet - Community Salmon Investigation for Highline

### Instructions for Use

Please fill out all sections of the form below using the following key:

- POH** Distance from back of eye to bend in tail
- % Egg Retention** For dead females only
- PSM** Pre Spawn Mortality (not spawned)
- POST** Post spawning
- Predated** Evidence that another animal bit or ate the fish
- \*** Required field

Questions? Contact [Elissa Ostergaard](#) (206-477-4792)

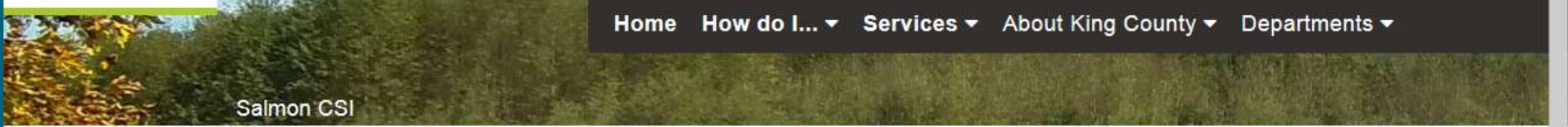
<b>Season:</b>	<input type="text" value="2015"/>	<b>Team Members:</b> *	<input type="text" value="Select"/>	<input type="text" value="Elissa Ostergaard, Ed Nugent,"/>
<b>Date:</b> *	<input type="text" value="10/03/2016"/>			
<b>Start Time:</b> *	<input type="text" value="8:00 am"/>	<b>Guest Members:</b>	<input type="text" value="Guest Name"/>	
<b>End Time:</b> *	<input type="text" value="10:30 am"/>	<b>Site:</b>	<input checked="" type="checkbox"/> Miller Creek <input checked="" type="checkbox"/> Walker Creek	
		<b>Weather:</b> *	<input type="text" value="Sunny"/>	<b>Water Level at Cove Beach:</b> <input type="text" value="Level"/>

**Notes (for overall survey):**

Training and orientation tonight; the padlock is on the gate at the swim club as of today.

Live Adult Fish





Salmon CSI

You're in: Salmon CSI

Salmon CSI

Search Surveys

Account Info

Welcome:  
**Elissa Test  
Volunteer**

**Log Off**

For questions about the Salmon CSI Monitoring Program, please contact **Elissa Ostergaard**, Stewardship Coordinator.

## Your Account Information

### Instructions for Use

If you wish to edit your information please fill out all sections of the form below using the following key:

**\*** Required field

Questions? Contact Elissa Ostergaard (206-477-4792)

### Account

**First Name:** \*

Elissa Test

**Last Name:** \*

Volunteer

Email

**Click on the "Add Email" button to add an entry.**

Add Email

Phone

# Pre-spawn Mortality

- Symptoms:
  - Swimming slowly, near the surface
  - Gaping, fins splayed
  - Bumping into things
  - On their side, barely moving, still fresh



# If you see symptomatic fish

- Take video
- Post it to YouTube
- Write down date, time, exact location
- Send me the link – I'll share with NOAA
- **Call UW so they can take water and tissue samples to find out what is causing it!**
  - See survey instructions for phone numbers for Bowen Du, Jonathan Lofton, and Ed Kolodziej





# Actually, they don't all look alike

## Salmon Identification Training Slideshow

### CSI: Highline

Slideshow adapted from Salmon Watcher program; developed by Jennifer Vanderhoof, King County Water and Land Resources Division



Photo by Geoff Clayton

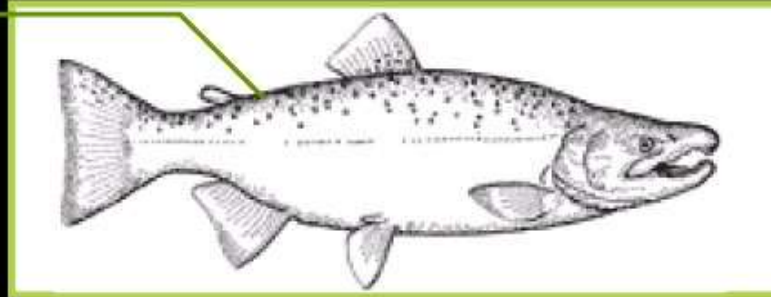
# Questions to Ask When Identifying Salmon:

1. Size
2. Spots
3. Color
4. Other behavioral characteristics

# Coho

("Silvers")

Round  
black spots



Often very skittish

Spots on back and  
UPPER lobe of  
tail fin only



Female

Back and head  
dark blue-green

Lower sides  
red-purple



Male

← 17 to 38 inches in length →

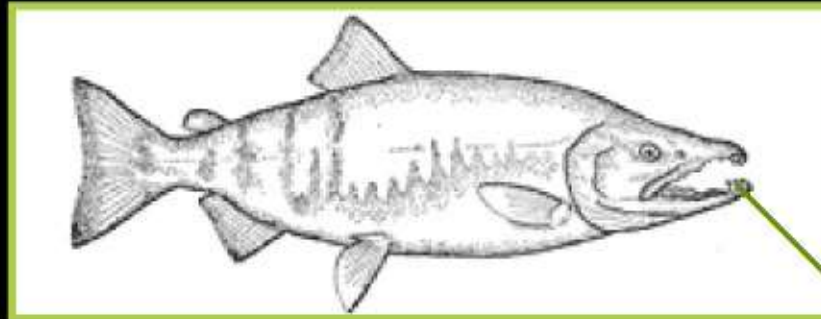


# Coho



# Chum

("Dog", "Keta")



Well developed  
teeth

No distinct  
black spots



Female

Dark blue above  
with reddish-purple  
vertical markings



Male

← 30-42 inches in length →

# Chum



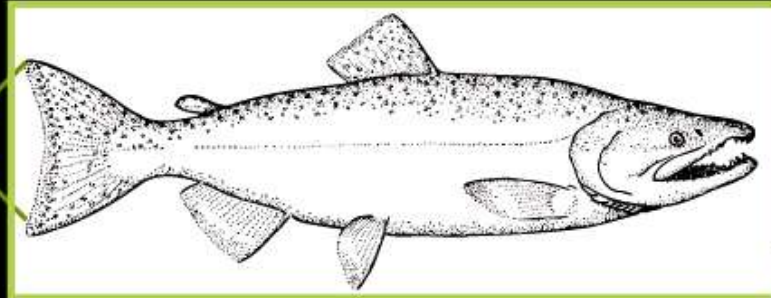
Photo courtesy of Nitinat River Hatchery, BC, Canada



# Chinook

("King," "Tyee," "Blackmouth")

Spots on BOTH  
upper and lower  
lobe of tail



Female



Olive brown  
to dark brown

Male



← 2 feet to 5 feet in length →

Photo by Carla Milesi



## Chinook



Photo by Geoff Clayton

# Pink, or Humpback

Numerous  
small scales

Dark band along  
lateral line



Only spawn in odd  
years (2011, 2013,  
etc.)

Large oval spots  
on back and both  
lobes of the tailfin



Males develop a  
large hump on  
their back (hence  
the nick name  
"Humpback"  
or "Humpy")

*Pink salmon spawn in central and south Puget Sound drainages **ONLY** in  
**ODD** numbered years*



# Pink Salmon



Photo E.R. Keeley

Look at boot for scale



Photo by Kirk Anderson

# Cutthroat Trout

Mouth extends  
beyond rear  
orbit of eye

Black spots  
throughout body  
in most sea-run fish

## Adult Sea-run Coastal Cutthroat Trout



Photo by Scott Craig USFWS

You will likely only see  
*juvenile* cutthroat trout.  
Coastal streams may see  
sea-run coastal cutthroat  
late in the season.

Length = 6-8"



Photo by Rodney Hsu

# Steelhead Trout: *Spawn in Winter* *VERY RARELY SEEN*

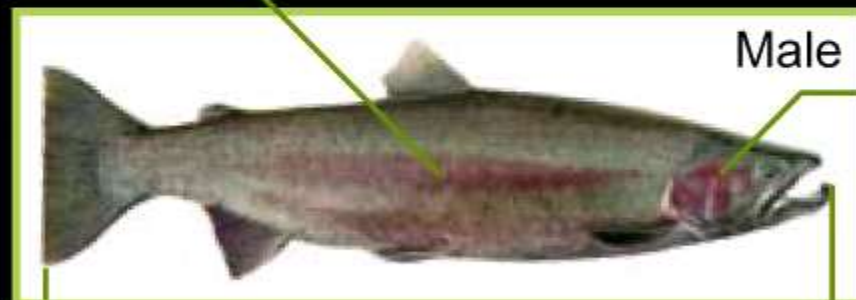
Distinct  
small spots  
on dorsal fin



Female

Head blunt, jaw  
does not extend  
past the eye

Often has reddish  
stripe along sides



Male

Gill cover  
reddish

← Up to 45 inches in length →



# Size

Chinook



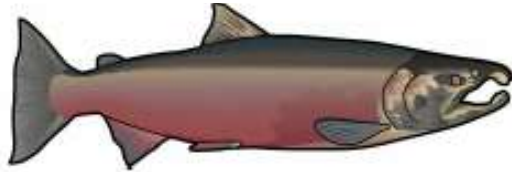
24-60"

Chum



30-42"

Coho



17-38"

Sockeye



20-28"

Pink



16-30"

Kokanee



8-22"

Cutthroat



up to 30"

# Spots

Chinook



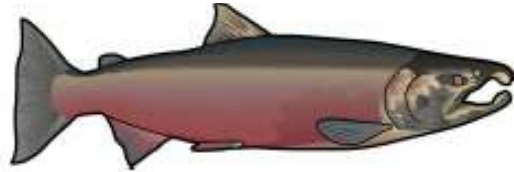
Large, splotchy, on top and bottom of tail fin

Chum



No defined spots

Coho



Small and distinct, only on top half of tail

Sockeye



No defined spots

Pink



Large, oval

Kokanee



May have small spots

Cutthroat



Numerous small spots, top & bottom

# Color

Chinook



Wide color range  
from red to green to  
brown

Chum



Red/purple flame  
like markings

Coho



Red on belly and gill  
covers, green back

Sockeye



Red body, green  
head and tail

Pink



Green back, white  
belly

Kokanee



Varies red to brown

Cutthroat



silvery



# 3) Review





Photo by Greg Brown, National Park Service





Photo by King County Staff





Photo by Chris Carrel, Friends of Hylebos Wetlands









# Male and female coho on Upper Miller Creek

October 14, 2011

Photo Courtesy of Ed Nugent







CSI:

Necropsy practice

# Important Tips!

- View after a rain, as soon as the water clears
- Use polarized glasses and a walking stick
- Be there before it gets too dark
- Wear dark clothes (except your safety vest) and move slowly – sudden movements or loud talking might frighten fish
- Walk lightly – on banks when possible
- Put the CSI placard on your car dashboard



# More Important Tips

- Call Elissa if you have any questions - (206) 477-4792 or cell (206) 707-6549
- Stay on the properties who have allowed access at all times (unless you are the property owner).
- Call the Adams when you start your survey and leave a message: (206) 588-1776

# Good CSI Skills

- Enter data and turn in datasheets **within 3 days** of your survey, even when you didn't see fish. We want your data! No matter what!
- Turn in a datasheet with all dates and survey times, including those when you didn't see fish.
- Mark the fish ID # and reach location on data sheets and on plastic bags with snouts.
- Always put in a fish species name. If there is a live or dead fish count, there should be a species.
- Always putting surveyors names on datasheet. Take credit!



<http://www.kingcounty.gov/environment/animalsAndPlants/beavers.aspx>





# Teams and Scheduling

- Monday – Joy & Roger, Michael & Carlyn
- Tuesday – Kristine & Liesl
- Tuesday – Pam & Kay
- Wednesday – Lee & Margy
- Wednesday – Dahli, Brenda & Terri
- Thursday – John & Erik (late start)
- Thursday – Sherril & Seth
- Friday – Ed & Matt

# Teams and Scheduling

- Saturday – Lisa and Nick
  - Saturday – Ashley, Shelby & Meghan
  - Sunday – Robin & Drew
  - Sunday – Ryan & Nick R.
- 
- Who doesn't have a survey day?
  - Holidays: Weds 11/11, Thurs 11/26, Fri 12/25
  - **Access** during weekends and holidays



# Teams and Scheduling

- Backup volunteers
  - Steve H.
  - Terri L.
  - Barb C. (Fridays)
  - Craig K.
  - Kerry & son (weekends)
  - Patrick H.

# Equipment and Waivers

- Please fill out and turn in the liability waiver. One for EVERY surveyor.
- Teams with day assignments: pick up ONE survey kit
- Backups: borrow a kit or use the one in the orange bucket
- Everyone – get a survey vest
- Optional: knife, snips, grippy gloves
- Return your equipment clean at the end of the season



**Thank you for your contribution!  
We couldn't do it without you.**



You put the **COMMUNITY** in Salmon  
Investigations

**CSI: Highline**